Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID A. LA POINT

Appeal No. 2003-1830
Application 09/534,101

ON BRIEF

Before WARREN, LIEBERMAN and JEFFREY T. SMITH, *Administrative Patent Judges.*

WARREN, *Administrative Patent Judge.*

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellant, in the brief and reply brief, and based on our review, find that we cannot sustain the ground of rejections of appealed claims 1 through 8, 10 through 13 and 19,[1] all of the claims in the application, under 35 U.S.C. § 103(a) as being unpatentable over Kidai et al. (Kidai) in view of Medford et al. (Medford).[2]

It is well settled that in order to establish a *prima facie* case of obviousness under § 103(a), the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in

[1] See the appendix to the brief.
[2] Answer, pages 2-4.

this art would have led that person to the claimed invention as a whole, including each and every limitation of the claims arranged as required by the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988).

Appellant divides the appealed claims into two groups on the basis of separate issues (brief, pages 4-5). The issue with respect to representative appealed claim 1 of the first group, involves the claim limitation "a zone adjacent the exposed surface [of the top coat layer of ultraviolet-curable colloidal silica containing synthetic resin] where the concentration of the colloidal silica is greater than in the rest of the top coat." The issue with respect to appealed claim 19, the sole claim in the second group, involves the claim limitations "[a]n article of manufacturing comprising a body having a metallic surface, [and] a base coat layer of synthetic resin . . . bonded to the metallic surface." We decide this appeal based on appealed claims 1 and 19. 37 CFR § 1.192(c)(7) (2002).

In the statement of the ground of rejection, the examiner admits that Kidai fails to disclose, *inter alia*, "(1) substrate such as metal; [and] (2) concentration of the colloidal silica is greater in a zone adjacent to the exposed surface than in the rest of the top hard coat;" finds that the hardcoat layer disclosed by Medford has the same concentration of colloidal silica since it is curable by ultraviolet light as is the topcoat of the claimed coating; and concludes that it would have been obvious to one of ordinary skill "to replace [Kidai's] heat curable top hard coat with [Medford's] [ultraviolet] curable hard coating" (answer, pages 3-4).

With respect to the issue of the claim limitation in appealed claim 1, appellant argues in the brief that the examiner improperly "assumes that the zone of increased concentration of colloidal silica is present in the prior art, even though that prior art does not disclose it, and the appellant is challenged to prove that something undisclosed is not present," and that Medford "does not disclose the distribution of colloidal silica in the finished coating" as required by this claim (page 4). Thus, appellant submits that the claimed top coat layer and the coating of

Medford "end up with different cured coatings because of the heating step (for the ultraviolet-curable top coat) disclosed by the applicant" at page 25, lines 9-18, of the specification:[3]

> The improved coating composition of this invention appears to depend on the heating of the interface between the uncured silicon-containing topcoat and the cured polyurethane-containing base coat. Without this heating step the top coat does not bond firmly to the base coat. Moreover, the heating step appears to cause at least part of the silica to concentrate in a zone 60 (FIG. 1) within 1 or 2 microns of the exposed surface of the top coat. Examination of a section of the cured coating composition on a metal substrate with a scanning electron microscope indicated that most of the colloidal silica concentrated in a zone within 1 or 2 microns of the exposed surface of the top coat, and there was no discernable boundary in a region 62 of the cured coating composition where the uncured top coat resin initially contacted the cured based coat resin.

As appellant points out, Medford does not disclose the heating step and Kidai does not disclose or suggest the distribution of colloidal silica required by appealed claim 1 (brief, page 6).

With respect to appealed claim 19, appellant submits that neither Kidai nor Medford discloses or suggests a metal substrate and the combination of a base coat resin bonded to metal and a top coat resin containing colloidal silica bonded to the base coat (*id.*, pages 6-7).

In response, the examiner assumes that since the claimed coating composition and that of Medford is the same, the colloidal silica concentration is also the same (page 4). The examiner further takes the position that while appellant states that a "heating step appears to cause at least part of the silica to concentrate in a zone 60 (Fig. 1) within one or two microns of the exposed surface of the top coat," Medford does "not disclose any such heating step and indeed, heating is not necessary because [Medford's] coating composition is cured with ultraviolet light" (*id.*). The examiner notes appellant's argument "that the article of claim 19 . . . includes a body with a metallic surface," a base coat and a top coat (*id.*, pages 4-5). The examiner concludes that appellant's "arguments are unpersuasive because the argued critical heating . . . step is not claimed or disclosed in the specification for ultraviolet-curable coating composition," and it is not "stated or disclosed that the argued heating step is critical and necessary before curing coating composition by ultraviolet light to obtain greater concentration of colloidal silica in zone adjacent to exposed surface than in the rest of the top coat," there being "no showing that in

[3] *See* the amendment of July 25, 2002 (Paper No. 12; pages 1-2).

absence of heating step the ultraviolet curable coating composition of [Medford] results in the coating having colloidal silica concentration [the] same through out the top coat" (*id.*, page 5).

In the reply brief, appellant again points out that it is disclosed in the specification as quoted above, that the step of heating the top coat prior to the ultraviolet curing step is thought to be responsible for the claimed zone of greater concentration of colloidal silica in the top coat and that such a step is not disclosed by Medford (pages 1-2), and that Kidai does not disclose a base coat bonded to a metallic surface (pages 3-4).

We find that the examiner has not specifically addressed the issue of whether the combined teachings of Kidai and Medford would have suggested the application of the base coat of Kidai to a metal substrate as required by appealed claim 19 to one of ordinary skill in the art, and we find no basis on this record to subsume this issue into the unrelated issue on the entirely different limitation of appealed claim 1 as the examiner has done. Accordingly, because the examiner has not established a *prima facie* case of obviousness with respect to appealed claim 19 on this record, we reverse the ground of rejection with respect to this claim.

Turning now to the issue of the zone of greater concentration of colloidal silica in the top coat in appealed claim 1, on this record, we agree with appellant that it is clear from the specification that the zone is created when the combination of uncured top coat composition and resin base coat is heated prior to curing the top coat with ultraviolet light in order to bond the two layers, and that there is no disclosure of such a step or zone in Medford. In order to establish a *prima facie* case of obviousness of the claimed product characterized by the presence of such zone encompassed by appealed claim 1, the examiner must establish that the claimed product including the zone limitation *reasonably appears* to be identical or substantially identical to the product of the combined teachings of Kidai and Medford even though prepared by a different process. *Cf. In re Spada*, 911 F.2d 705, 708-09, 15 USPQ2d 1655, 1657-58 (Fed. Cir. 1990) ("The Board held that the compositions claimed by Spada 'appear to be identical' to those described by Smith. While Spada criticizes the usage of the word 'appear', we think that it was reasonable for the PTO to infer that the polymerization by both Smith and Spada of identical monomers, employing the same or similar polymerization techniques, would produce polymers having the identical composition."); *In re Best*, 562 F.2d 1252, 1254-55, 195 USPQ 430, 432-33

(CCPA 1977) ("Because any sample of Hansford's calcined zeolitic catalyst would necessarily be cooled to facilitate subsequent handling, the conclusion of the examiner that such cooling is encompassed by the terms of the appealed claims was reasonable. . . . [T]he board necessarily considered Hansford's disclosure of a gas 'stream' as equivalent to a disclosure of the removal of generated ammonia from contact with the zeolite."). Because the examiner has not carried this burden with respect to the claimed product encompassed by the zone limitation and all of the other limitations of appealed claim 1, we reverse the ground of rejection with respect to appealed claims 1 through 8 and 10 through 13.

The examiner's decision is reversed.

Reversed

CHARLES F. WARREN Administrative Patent Judge	)	
PAUL LIEBERMAN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY T. SMITH Administrative Patent Judge	)	

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